

Remarks/Arguments

Claims 1 and 2 are pending in the application. Claim 1 is independent.

In the present response, claim 1 is amended. The support for the claim amendment may be found in Applicants' specification, for example, page 8, lines 17 – 21, and page 9, lines 3 – 5 and lines 9 – 11. No new matter is added.

Rejection of claim 1 under 35 U.S.C. 103(a) over Farhangi et al. (US Patent 5647008, hereinafter “Far”) further in view of Smith et al. (US Patent 7212872, hereinafter “Smith”).

Applicants submit that for at least the following reasons, claim 1 is patentable over Far and Smith, either singly or in combination.

For example, claim 1, in part, requires:

“Method for processing two or more decoded but not yet combined individual audio signals received or replayed from different audio sources, wherein at least two of said decoded audio signals have a different number of channels per decoded audio signal and different channel configurations for channel to speaker mapping, ... and the channel configuration information items for said two or more decoded audio signals can demand number of channels per decoded audio signal and channel configurations conflicting with each other, said method comprising:

controlling said mixing and/or switching such that in case of non-matching number of channels and non-matching types of channel configurations the number of the channels and the configuration type of the channels to be output following said mixing and/or following said switching is determined by specific mixing and/or switching information provided from a content provider or broadcaster that is embedded in at least one of said audio signals, so as to resolve such conflict.” (Emphases added)

Applicants' claimed invention deals with conflicts arising from individual audio signals received or replayed from different audio sources with a number of channels per decoded audio signal and channel configurations conflicting with each other.

Since Applicants' claimed invention deals with a method for processing two or more decoded but not yet combined individual audio signals received or replayed from different audio sources, the signals to be processed are already in the receiver. Thus, it is clear that the conflict resolution is to be performed at the receiver side. Furthermore, the specific mixing and/or switching information for resolving conflicts is provided from a content provider or broadcaster and is embedded in at least one of said audio signals.

In contrast, both Far and Smith deal with audio signal mixing at the sender or transmitter side. One of ordinary skill in the art would understand from the combination of Far and Smith that, at the transmitter side, the transmitter knows which kind of audio signals are present and are to be mixed and how they are to be mixed. Since the broadcaster or content provider is already aware of the situation at the receiver side, they will design the transmitted bitstream accordingly so that no conflicting channel number/configuration can occur at the receiver side mixdown. Thus, the mix instruction or assignment of the audio signal channels already occurs at the transmitter side (Far: abstract; Fig.2; column 3, lines 10-12; Smith: abstract; Fig.12; column 7, lines 7-15; column 8, lines 47-48 and 52-54).

According to Applicants' claimed invention, the original channel number/configuration instructions (page 1, lines 34 – 35; page 2, lines 31 – 33) provided by the content provider of each audio signal source can (for the case of a possible conflict) be re-defined (i.e. made invalid) by specific channel number/configuration instructions (page 3, line 29 to page 4, line 5) of a content provider or broadcaster for the purpose of mixing and presenting such different-type audio signals.

Such a situation cannot occur in Far or Smith. That is, in Far or Smith, a conflict with different channel configurations of different audio signals occurring only at the receiver side is not foreseen at the transmitter or content provider side. In other

words, the audio signals received at the receiver side will not have a different number of channels per decoded audio signal and different channel configurations for channel to speaker mapping. Thus, in Far or Smith, there is no number of channels per decoded audio signal and channel configurations conflict at the receiver side. Consequently, there is no need nor is there even a suggestion to have specific mixing and/or switching information for resolving the conflicts embedded in at least one of the audio signals.

In the Office Action, page 6, Response to Arguments section, the Office alleges that a digital mixer (such as Far's digital mixer 277) combines equal length digital words corresponding to a shared clock instant (Far: column 4, lines 41 – 45); and in this way, the conversion or de-formatting from the native state in which a content provider has encoded the signal into a raw audio data format is a form of conflict resolution. Applicants respectfully traverse and point out that such a form of conflict resolution is not the same as the conflict resolution claimed by Applicants.

Applicants' claimed invention deals with conflicts having a different number of channels per decoded audio signal and different channel configurations for channel to speaker mapping, as specifically recited in claim 1.

Mixing audio signals in a raw data format, as taught by Far, does not solve a conflict with a different number of channels per decoded audio signal and different channel configurations. Applicants note that Far's channel signal data formats are not the same as channel configurations for channel to speaker mapping. Applicants further submit that mixing a stereo signal and a mono signal does not cause a "conflict" because a mono signal is simply added to the left stereo channel and to the right stereo channel.

Therefore, in Far and Smith, there is no number of channels per decoded audio signal and channel configurations conflict at the receiver side and thus there is no teaching or suggestion to resolve such conflict for the two or more decoded but not yet combined individual audio signals received or replayed from different audio sources.

In view of at least the foregoing, Applicants submit that claim 1 is patentable over the combination of Far and Smith.

Rejection of claim 2 under 35 U.S.C. 103(a) as being unpatentable over Far in view of Smith, further in view of Saunders et al. (US Patent 7266501, hereinafter Saunders).

Applicants submit that Saunders, does not in any way cure the deficiencies present in the combination of Far and Smith with regard to suggesting the features of claim 1, as discussed above. Therefore, claim 2 is patentable because at least it depends from claim 1 and includes further distinguishing features.

Withdrawal of the rejection of claims 1 and 2 under 35 U.S.C. 103(a) is respectfully requested.

Conclusion

Having fully addressed the Examiner's rejections it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicant's attorney at (609) 734-6813, so that a mutually convenient date and time for a telephonic interview may be scheduled.

Respectfully submitted,
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